

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027339**Date Inspected:** 19-Mar-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** On Site**CWI Name:** Sal Marino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Components**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations were:

OBG Deck Plate Lifting Lug Hole (LLH) on Segment 13E on E3 Line:

This QA Inspector randomly observed ABF welder Rick Clayborn (Welder ID 2773) performing the repair weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position of insert plate at LLH #3 on the interior side of OBG 13E at Panel Point (PP) 118.5 LLH #3 (13EPP118.5W3 - LLH-3). The thickness of the LLH insert plate was 30 mm.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1004 Repair Revision 0 using ESAB E7018 (3.2 mm) diameter electrode.

The repair weld operation was completed on this CJP groove weld and afterwards a Post Heat Treatment (PHT) on the repair area was performed using electric Preheat 35. The repair weld and PHT operation on this date appeared to be in general compliance with the contract specifications.

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OBG Deck Plate Lifting Lug Hole (LLH) on Segment 13E on E3 Line:

This QA Inspector randomly observed ABF welder Rick Clayborn (Welder ID 2773) performing the repair weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position of insert plate at LLH #4 on the interior side of OBG 13E at Panel Point (PP) 118.5 LLH #4 (13EPP118.5W4 - LLH-4). The thickness of the LLH insert plate was 30 mm.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1004 Repair Revision 0 using ESAB E7018 (3.2 mm) diameter electrode.

The repair weld operation was completed on this CJP groove weld and afterwards a Post Heat Treatment (PHT) on the repair area was performed using electric Proheat 35. The repair weld and PHT operation on this date appeared to be in general compliance with the contract specifications.

OBG Deck Plate Lifting Lug Hole (LLH) on Segment 13E on E3 Line:

This QA Inspector randomly observed ABF welder Rick Clayborn (Welder ID 2773) performing the repair weld operation per the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position of insert plate at LLH #3 on the exterior side of OBG 13E at Panel Point (PP) 119.5 LLH #3 (13EPP119.5W3 - LLH-3). The thickness of the LLH insert plate was 30 mm.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1004 Repair Revision 0 using ESAB E7018 (3.2 mm) diameter electrode.

The repair weld operation was completed on this CJP groove weld and afterwards a Post Heat Treatment (PHT) on the repair area was performed using electric Proheat 35. The repair weld and PHT operation on this date appeared to be in general compliance with the contract specifications.

OBG Deck Plate Vent Hole (VH) on Segment 13E on E5 Line:

This QA Inspector randomly observed ABF welder Rick Clayborn (Welder ID 2773) performing the repair weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position of insert plate at Vent hole #3 on the exterior side of OBG 13E at Panel Point (PP) 118.7. The thickness of the LLH insert plate was 30 mm.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1004 Repair Revision 0 using ESAB E7018 (3.2 mm) diameter electrode.

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The repair weld operation was completed on this CJP groove weld and afterwards a Post Heat Treatment (PHT) on the repair area was performed using electric Proheat 35. The repair weld and PHT operation on this date appeared to be in general compliance with the contract specifications.

OBG East Line Segment 12E/13E -A- LS-5 and LS-6:

This QA Inspector randomly observed ABF welder Jeremy Dolman (Welder ID 5042) performing the partial-joint penetration (PJP) T / Corner-joint groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on deck stiffener plates to I-Rib LS-5 and to I-Rib LS-6.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the PJP groove weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1162-4 Repair Revision 0 using Lincoln E9018 (3.2 mm) diameter electrode.

The PJP groove weld operation was still in-process on this date and the workmanship appeared to be in general compliance with the contract specifications.

OBG East Line Segment 13E/14E -A- LS-5:

This QA Inspector randomly observed ABF welder Richard Garcia (Welder ID 5892) performing the repair weld operation from ultrasonic rejectable indications on a complete-joint penetration (CJP) Butt-joint double V groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (3G) vertical position on the transverse weld splice of I-Rib LS-5.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1012-3 Repair Revision 0 using Lincoln E9018 (3.2 mm) diameter electrode.

The repair weld operation was completed on this date and the workmanship appeared to be in general compliance with the contract specifications.

OBG East Line Segment 14E @ PP128 - Punchlist Item 3724:

This QA Inspector randomly observed ABF welder Rory Hogan (Welder ID 3186) performing the fillet and flare bevel groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (2F and 3F) horizontal and vertical positions on the traveler rail support bracket on Segment 14E @ PP128.

This QA Inspector observed QC Inspector Sal Marino verify prior to the start of the fillet and flare bevel groove weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwards; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS F1200A Revision 0 and WPS D11-1190 Revision 0 using Lincoln E7018 (3.2 mm) diameter electrode.

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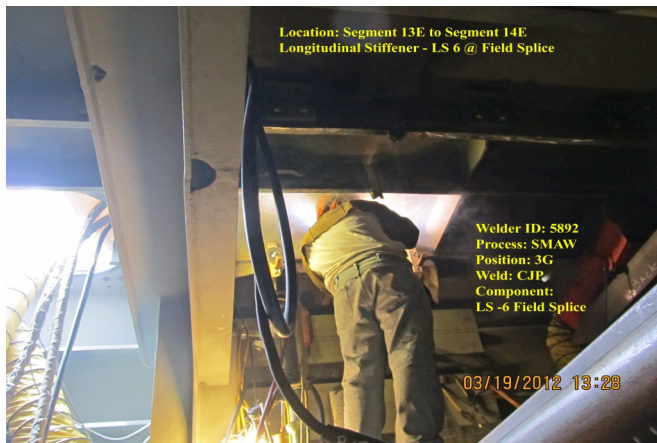
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The fillet and flare bevel groove weld operation was in-process on this date and the workmanship appeared to be in general compliance with the contract specifications.

Planar Offset Survey Verification 13W / 14W:

This QA Inspector met with ABF QC Inspector Steve Jensen to perform a planar offset survey verification inspection on the side panel - (E1) transverse splice from "Y" Location (0 ~ 70) mm where the maximum offset measured was 5 mm. This QA Inspector verified that the width of the weld was 25 mm and the minimum weld width required at this location is 15 mm.

The planar offset survey verification inspection performed appeared to be in compliance with the contract specifications.



Summary of Conversations:

Only general conversations between this QA and QC on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson, Art	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
